Work Orde		100397			*100	1397*						Page 1
Item ID: Revision ID:	D3917-3				Accept	*N900	040	100)*	Setup Star	i Vi	S1*
Item Name:	Washer									Sto	° *N	S2*
Start Date:	4/17/13	Start Qty:	80.00	*80*		Cust Item I	D:	•				
Required Date: Reference:	: 5/03/13	Req'd Qty	y: 80.00	*80*	* .	Customer:						
Approvals:	Process I	Plan: MLJ	• •	Date: 13-04-23	3 Tooling:	D:	ate:]	Run Stai	1/1	R1*
				Date:	SPC (Y/N):	Da	ate:			Sto	*N	R2*
Sequence ID/ Work Center I	D	Operation Description			Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	R	Revision Nbr	:									
D3917	A	1										
100					0.00							
100 Hardinge		N	1emo		0.00		13-04-1	29	82	Ø		 -
Hardinge CNC Lath	ne Sinall	F	TURN AS PI TOLIO REV DWG REV:_		3							
		E	DEBURR									
110		QC2- Inspect	parts off ma	achine FAI/FAIB	0.00				•			
11∩				•	•	A	100	7	87	D		

0.00

Memo

Quality Control

	•	1								DQA:	Date	:
NCR: Y	es / No	1			WORK ORDER NON-O	100	NFORM	ANCE / UP	DATE			
		1								QA Closed:	Date	:
Work Orde	ė.	i			DISPOSITION				/PROCESS			
Part N	o				Rework Scrap Use-as-is Work Order Update	rap Machining Small Fab Prod. Eng. Coor. Is-is Thermoforming Finishing Rec/Store/Packaging						Engineering Quality Other
Root				Descri	ption of work order update		nitial	Act	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desci	ription	Date	Verification	QC Inspector
Doc/Data		j									:	
Equip/Tooling			1 1		•					·		
Operator	'										!	
Material		1 :									,	
Setup		!			•							
Other			1 1									
Process		- 1										
Supplier	-		1 1									
Training		1										
Unapproved						١.						
		1			F.	AUL	T CATE	GORY		·		
Landin	ig Gear				General		_			_		-
	Bending	į			Bend		Grain			Ovalized		Pressure/Forced
[Centre N	ot Conce	ntric to C)/s [BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Cracks	i :			Broken/Damaged		Inspecti	on Incomplete		Part Incorred	ct	Weld
	Crushed/	Crimped			Burrs		Instruct	ions Incomplete/l	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
Ţ	Cuffs	i			Contamination		Mainte	nance		Part Moved	-	
<u> </u>	Heat Trea	at			Countersink		Mislabeled			Positioned V	Vrong	_
	Inspectio	n Strip in	Tube		Cut Too Short		Misread	l		Power Loss/	Surge	Other
<u> </u>	Ripples in Bend			Drill Holes	Offset			_				

Out of Calibration

Out of Sequence

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

Work Orde		0397			*10	ივ97*							Page 2
Item ID: Revision ID: Item Name:	D3917-3 Washer			F	Accept	*N900	040	100)*	Setup	Start Stop	14	S1* S2*
Start Date: Required Date: Reference:	4/17/13 5/03/13	Start Qty: 80.00 Req'd Qty: 80.00		'ጸበ* 'ጸበ*		Cust Item I Customer:	D:						
Approvals:	Process Pla	ın:	Date:		Tooling:	Da	ite:			Run	Start	*N	R1*
			Date:		SPC (Y/N):	Da	ıte:				Stop	*N	R2*
Sequence ID/ Work Center II	D	Operation Description QC8- Inspect parts - second	nd check		Set Up/ Run Hours		Tool #	Plan Code	Accept Qty	Re Qt	-	Reject Number	Insp. Stamp As 13
120 QC Quality Control		Memo			0.00	13-4-30	9		82				<u> (48</u>
130		Identify as per dwg & Sto	ck Lócation:	No72	.0.00				C ₂				
130 Packaging Packaging		Memo			0.00				~ \S d . \l	<u> </u>			13-4-3

140

QC21- Final Inspection - Work Order Release 0.00

*14**0***

Memo

Quality Control

0.00

pl 13-05-2.

										DQA:	Date	e:	
NCR: Y	'es / No				WORK ORDER NON-C	100	NFOR	MANCE / UPI	DATE	0.0			
					· · · · · · · · · · · · · · · · · · ·					QA Closed:	Date	2:	
Work Orde	er:	-			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
					Rework			Skid-tube Crosstube			Water Jet	Engineering	
Part N	lo.	1			Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality	
		ì			Use-as-is		Thern	noforming	Finishing	Rec/Sto	re/Packaging	Other	
NCR N	lo	!			Work Order Update			Large Fab	Composite		Supplier		
		!										· •	
Root	1				ption of work order update	1	nitial		tion	Sign &			
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector	
Doc/Data													
Equip/Tooling			1 1			Ì			•		•		
Operator													
Material		· i											
Setup					•								
Other	_												
Process										,			
Supplier		ì	1 1		•								
Training								;					
Unapproved			<u> </u>										
-	· · · · · · · · · · · · · · · · · · ·	<u> </u>				AUL	T CATE	GORY					
Landii	ng Gear	i			General		1			٦	Г		
	Bending				Bend	<u> </u>	Grain		<u> </u>	Ovalized		Pressure/Forced	
		Not Conce	entric to (^{D/S}	BOM/Route	-	Hardwa		<u> </u>	Over/Under	⊢	Temperature/Cure	
	Cracks	i		<u> </u>	Broken/Damaged	\vdash		ion Incomplete	-	Part Incorre	<u> </u>	Weld	
		//Crimped	!	_	Burrs	\vdash	4	tions Incomplete/U	Jnclear	Part Lost/M	ssing	Wrong Stock Pulled	
	Cuffs				Contamination	\vdash	Mainte		<u> </u>	Part Moved			
	Heat Tre	:		\vdash	Countersink	\vdash	Mislabe		-	Positioned V		70000	
		on Strip ir	n Tube	-	Cut Too Short	-	Misrea	đ	L	Power Loss/	surge [Other	
	Ripples	- 1		<u> </u>	Drill Holes	\vdash	Offset	o lu					
		Waves in		` <u> </u> _	Drawing		4	Calibration -					
	Turning	Sequence	9	1	Finish	L.	JOut of !	Sequence					

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Wave/Twist in Tube

Folio

Picklist Print

April-22-13 1:03:26 PM

Work Order ID:

100397

Parent Item:

D3917-3

Parent Item Name:

Washer

Start Date: 4/17/13

Required Date: 5/03/13

Page 1

Start Qty: 80.00

Required Qty: 80.00

Comments:

Ipp Rev:A New Issue 09-12-02 JLM Verified by:DD

IPP Rev:B as per dwg REV.A DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MDELRINR0.750 Delrin Round Bar 0.75"		Purchased	No			100	f	224.1110	0.02	, 3.55 , 3.55	_	\$\$ 1	3-04-2
				Location		Loc Qty	Lo	c Code					
				MAT018		224.111							
				116	183	4.8							
				117	273	4.665							
				117	322	0.94							
				121	783	27.49							
				124	834	40							
				124	957	146.216			1,3	333'			

NCR: Y	es / No				WORK ORDER NON-C	O	NFOR	MANCE / UP	DATE			
								····		QA Closed:	Date:	
Manle Onda	· · · · · · · · · · · · · · · · · · ·	: ,			DISPOSITION				AGAINST DI	EPARTMENT,	/PROCESS	
Work Orde					Rework	1	Skid-tube Crosstube			7	Water Jet	Engineering
Part N	lo.				Scrap		1	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
NCR N	<u> </u>	i			Use-as-is Work Order Update		Thern	noforming Large Fab	Finishing Composite	Rec/Sto	re/Packaging Supplier	Other
NCK IV	····				Work Order opuate	,		carge rab	composite_	J	3applie!	
Root		T i		Descri	iption of work order update	1	nitial	Ac	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling					•	1						
Operator	_	1										
Material	_	į		-								
Setup		1										
Other		i										
Process	_ ·	1				İ						
Supplier		- '										
Training		,		1								
Unapproved		<u> </u>		<u> </u>		<u> </u>	T CATE	CORV				<u> </u>
Landir	ng Gear		-		General ' General	HUL	CAIL	GONT				-
	Bendin	ί σ.			Bend		Grain			Ovalized		Pressure/Forced
,		Not Conce	ntric to	O/S	BOM/Route	-	Hardwa	ire		Over/Under	tolerance	Temperature/Cure
	Cracks	i		"	Broken/Damaged		1	ion Incomplete		Part Incorred	 	Weld
	 -	d/Crimped	İ		Burrs		1	ions Incomplete/	'Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs				Contamination		Mainte	•		Part Moved		_
Ì	Heat Ti	eat			Countersink		Mislabe	eled		Positioned V	Vrong	_
	_	ion Strip ir	n Tube	广	Cut Too Short		Misread	d .		Power Loss/	Surge	Other
		in Bend			Drill Holes		Offset			-		
	Torque	Waves in	Extrusio	n 📗	Drawing	Out of Calibration						
	Turning Sequence				Finish	Out of Sequence						

Outside Dimensions

DQA:

Date:

Wave/Twist in Tube

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

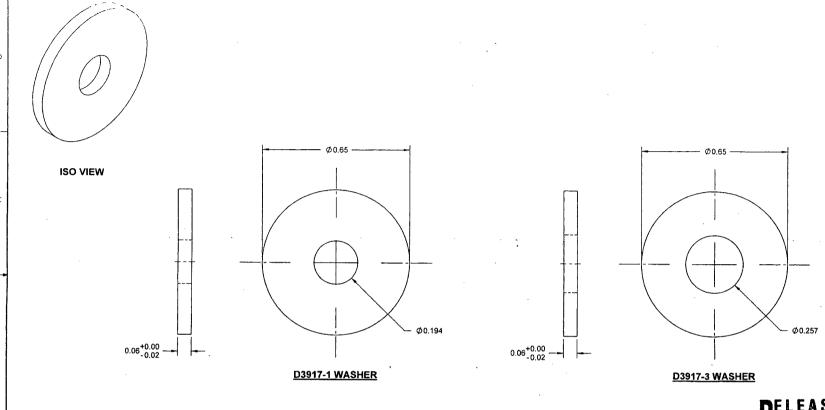
DART AEROSPACE LTD	Work Order:	100397
Description: Washer	Part Number:	D3917-3
Inspection Dwg: D3917 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

	X	First Artic	le	Proto	type
Drawing	Tolerance	Actual	Accord	Daisat	Meth
Dimension	Tolerance	Dimension	Accept	Reject	Inspe

Dimension	Tolerance	Dimension	Accept	Reject	Inspection	Co	mments
Ø0.65	+/-0.030	0652	/		5108	Vein	
0.06	+0.000/-0.020	.0555					
Ø0.257	+0.006/-0.001	.0555 .257	~				
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A. S. C.					1.4		
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					1.25		
					`		T
Measured by:	3	Audited by:	ξω&		Prototype A	pproval:	N/A
Date:	3-04-29	Date:	13-4-	30		Date:	N/A
Rev Date (Change				Revis	ed by∧	Apprøved

	Date:	13-04-29	Date: 13-4-30	Date:	N/A
Rev	Date	Change		Revised by ∧	Apprøved
Α	10.04.01	New Issue		KJ 981	1/2/1



RELEASE 2010 -02- 16

NOTES:

1) MATERIAL: DELRIN II I50E OR ACETRON GP ACETAL, COLOR BLACK REF DART SPEC M-DELRIN-R

2) FINISH: NONE

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: N/A

7) WEIGHT: < 0.01 lbs

Ą	NEWIS	SUE		JPH	10.01.29		
REV.			DESCRIPTION	8Y	DATE		
DESIGN	4	AJS	DART AEROSPA	CE L	E LTD		
DRAWN	٧.	AJS	HAWKESBURY, ONTARIO				
CHECKED (1)		_0	DRAWING NO.		REV. A		
MFG. A	PPR.	\mathcal{Z}	D3917		SHEET 1 OF 1		
APPRO	VED	140,	TITLE		SCALE		
DE APPR.		-#-	🗍 WASHER (350 BASKE	T)	NTS		
DATE	10.0	1.29	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND COMPOSITION, AND IS SUPPLIED ON THE EXPRESS EXHIBITION THAT IT IS				

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 $x = f_{\mathfrak{p}}(x)$

100397 MC5 13-04-23